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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,359	04/24/2001	Saul Kato	IBOB-001/02US	6565

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EXAMINER
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LIN, WEN TAI

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/842,359	KATO, SAUL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Wen-Tai Lin	2154	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-20, 21-30 and 32 is/are rejected.
- 7) ☒ Claim(s) 11, 21 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-32 are presented for examination. Claims 1-18 have been amended and claims 19-32 are newly added.
2. The text of those sections of Title 35, USC code not included in this action can be found in the prior Office Action.

### ***Claim Rejections - 35 USC § 102***

3. Claims 1 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Beach [U.S. PGPub 20010055283].
4. Beach was cited as prior art of record in the previous office action.
5. As to claims 1 and 13, Beach teaches the invention as claimed including: an information distributor [12, 18a-18h, Fig.1], comprising:
  - a processor [38, Fig.3];
  - a network receiver connected to said processor [paragraph 71; note that 46, Fig.3 is an Ethernet cable, therefore by default there is a network receiver connected to the Ethernet];
  - a transceiver system connected to said processor [42, Fig.3]; and

a memory connected to said processor [e.g., RAM and ROM of the DSP of Fig.3], wherein said memory includes:

network receiver communication stacks configured to direct said network receiver to receive information from a structuring system [14a-14b, Fig.1; i.e., the cell controller is a structuring system performing high level functions, reformatting and relaying messages into appropriate RF ports] via a system communication network [12, Fig.1]; and transceiver protocol stacks configured to direct said transceiver system to wirelessly transmit said information received from the structuring system on demand to a portable computing device located within transmission range of said transceiver system [paragraphs 38-39], wherein said transceiver protocol stacks include:

a first module configured to direct said transceiver system to generate a beacon; a second module configured to direct said transceiver system to detect an acknowledgement signal generated, in response to said beacon, by said portable computing device; and a third module configured to direct said transceiver system to generate, in response to said acknowledgement signal, a broadcast incorporating said information [paragraph 40; note that since the passage indicates that a mobile unit is able to transmit indication of receiving beacons signals (i.e., sending an acknowledgement signal) and in response the system performs necessary functions to support roaming of the mobile unit, there must exist respective modules (or software portions) for generating beacon signals, detecting acknowledgement signals, and broadcasting relevant information to the mobile units (i.e., supporting the roaming)].

Claim Rejections - 35 USC § 103

6. Claims 1-6, 9-10, 12-17, 23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over LaRowe et al.(hereafter "LaRowe") [U.S. Pat. No. 6351468] in view of Beach [U.S. PGPub 20010055283].

7. As to claim 1, LaRowe teaches the invention substantially as claimed including:  
an information distributor [110, Fig.1], comprising:

- a processor [210, Fig.2; col.3, lines 38-39];

- a network receiver connected to said processor [Abstract, lines 1-2];

- a transceiver system connected to said processor [230, Fig.2]; and

- a memory connected to said processor, wherein said memory includes:

- network receiver communication stacks configured to direct said network receiver to receive information a system communication network; and transceiver protocol stacks configured to direct said transceiver system to wirelessly transmit said information on demand to a portable computing device located within transmission range of said transceiver system [col.3, lines 38-59], wherein said transceiver protocol stacks include:

- a first module configured to direct said transceiver system to generate a beacon [e.g., Abstract: lines 3-5; Fig.7];

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a second module configured to direct said transceiver system to detect an acknowledgement signal generated, in response to said beacon, by said portable computing device [Fig.7; col.6, line 66 – col.7, line 14]; and

a third module configured to direct said transceiver system to generate, in response to said acknowledgement signal, a broadcast incorporating said information [Abstract: lines 1-11; col.19, lines 6-45].

LaRowe does not specifically teach that the information is received from a structured system.

However, in the same field of endeavor, Beach teaches low-power information distributor having at least one cell controller functioning as structured system as claimed [14a-14b, Fig.1; i.e., the cell controller is a structuring system performing high level functions, reformatting and relaying messages into appropriate RF ports via a system communication network 12, Fig.1].

While both LaRowe's and Beach's systems are designed to save power consumption [see, e.g., Beach:paragraphs 5, 11 and 70], it is obvious to one of ordinary skill in the art to adopt Beach's approach by providing an structuring system for performing high level functions and reformatting messages as appropriate because by doing so the power consumption of LaRowe's battery-powered system could be further reduced [col.1, lines 27-32].

8. As to claim 2, LaRowe further teaches that The information distributor comprising a battery connected to said processor [col.3, lines 33-36].

9. As to claim 3, LaRowe further teaches that said system communication network is a paging network, and wherein said network receiver includes a radio frequency communication device configured to receive paging transmissions [col.3, lines 20-24; note the fact that the hub can reside in a pager-like device indicates that the system may function in a paging network environment].

10. As to claims 4 and 6, LaRowe further teaches that wherein said first module has:  
a fourth module configured to direct said transceiver system to generate said beacon/broadcast by boosting a base signal power level to increase transmission range of said beacon/broadcast [col.3, lines 42-51; col.4, lines 44-50; col.9, lines 26-33; note that the power adjustment is applied mainly due to concerns about range of coverage and interferences. Once a range is determined, the power adjustment is applicable to beacon, acknowledgement and broadcast information because these signals rely on the same transceivers for detection].

11. As to claim 5, LaRowe further teaches that acknowledgements are automatically received by a receiving device (Hub or PEA) [col.16, lines 24-31]. That is there must be a module at the transceiver to detect the acknowledgement signal.

LaRowe does not specifically teach that the acknowledgement signal is an amplitude-shift-keying modulated signal.

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However, it is well known in the art that information may be modulated on an RF carrier via various methods, and amplitude-shift-keying is one of them. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use amplitude-shift-keying for modulating LaRowe's acknowledgement signal because amplitude-shift-keying is particularly suitable for short-range, narrow bandwidth signaling.

12. As to claim 9, since the features of this claim can also be found in claims 1-2, it is rejected for the same reasons set forth in the rejection of claims 1-2 above.

13. As to claim 10, LaRowe further teaches that said memory further includes:  
an initial schedule [i.e., the dynamic TDMA], wherein said initial schedule indicates a start of transmission time of said first scheduled transmission, and wherein said first module is configured to switch said network receiver from said sleep mode to said active mode in accordance with said initial schedule [col.3, lines 42-51; col.5, line 65 – col.6, line 19; col.11, lines 25-33].

14. As to claims 12-17, 23 and 25-27, since the features of these claims can also be found in claims 1-6 and 9-10, they are rejected for the same reasons set forth in the rejection of claims 1-6 and 9-10 above.



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15. Claims 7-8, 18-20, 22, 24, 28-30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over LaRowe et al.(hereafter "LaRowe") [U.S. Pat. No. 6351468] and Beach [U.S. PGPub 20010055283], as applied to claims 1-6, 9-10, 12-17, 23 and 25-27 above, further in view of Shvodian [U.S. PGPub 20020105970].

16. Shvodian was cited in the previous office action.

17. As to claims 7-8, LaRowe does not specifically teach that said beacon, said acknowledgement signal, and said broadcast are infrared signals, and wherein said transceiver system includes an infrared communication device.

However, it is well known in the art that infrared can be used as short-range communication. For example, Shvodian teaches a similar system wherein infrared is used as transmission carrier [Shvodian: paragraphs 78-79].

It would have been obvious to one of ordinary skill in the art at the time the invention was made that LaRowe may also uses infrared as transmission carrier because for short range communications, infrared appears to be economically efficient and the interference problem is more manageable.

18. As to claims 18-20, 22, 24, 28-30 and 32, since the features of these claims can also be found in claims 1-10, 12-17, 23 and 25-27, they are rejected for the same reasons set forth in the rejection of claims 1-10, 12-17, 23 and 25-27 above.

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19. Claims 11, 21 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. Applicant's arguments with respect to claims 1-18 on 12/6/2004 have been considered but are moot in view of the new ground(s) of rejection.

As for Applicant's argument regarding the first, second and third modules being not explicitly taught by LaRowe: it is noted that since the word "module" has not been clearly defined in the Applicant's disclosure, neither does the Applicant teach how are different modules distinguish among themselves (e.g., the first module can include a fourth module – see claim 4), the module has been broadly interpreted as **a portion of a program** implementing certain designated functionality. Since LaRowe teaches using digital control logic (e.g., 220, Fig.2) to execute software from an internal memory to coordinate the operations of the Hub host 210 and the RF circuitry 230, it is asserted that LaRowe reads on the claims. For example, LaRowe's DCL software must have included respective portions for generating beacon signals (the first module), detecting acknowledgement signals (the second module), and broadcasting relevant information to the mobile units (i.e., supporting the roaming –the third module).

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP §

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706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

22. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

**Examiner note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the contest of the passage as taught by the prior art or disclosed by the Examiner.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

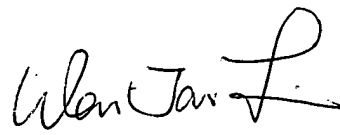
(703)872-9306 for official communications; and

(571)273-3969 for status inquires draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

January 25, 2005

  
1/25/05